REMARKS

I. Status of Claims

Claims 24-50 are pending in this application. Claim 24 is the only independent claim.

This Response amends claims 24-27, 34-41 and 43-44 and adds new claims 47-50. Support for amendments to claim 24 may be found, *inter alia*, in FIG.1 and corresponding descriptions. Support for the new claims 47-49 may be found, *inter alia*, in FIG.1 and corresponding descriptions. Support for the new claim 50 may be found, *inter alia*, in paragraph [0077] of the application as filed. Other amendments are directed to clarify the claim language. No new matter is introduced by the amendments and new claims.

Claims 24-30, 32-37, and 45-46 stand rejected under 35 USC 102(b) as allegedly clearly anticipated by Applicant's Admission of Prior Art ("AAPA")(applicant's specification at paragraphs [0003]-[0017] and FIGS. 30-31).

Also, claim 24 is also rejected under 35 USC 102(b) as allegedly being clearly anticipated by USP 4,176,213 to van Linden ("van Linden").

Moreover, claim 24 is rejected under 35 USC 102(b) as allegedly being clearly anticipated by JP 2002-124291 ("JP 2002-124291").

Further, claim 24 is rejected under 35 USC 102(b) as allegedly being clearly anticipated by German publication DE 196 45 111 ("DE 196 45 111").

Claim 38 stands rejected under 35 USC 103(a) as allegedly being unpatentable over AAPA, as applied to claim 24 above, and in further view of either USP 5,824,199 to Simmons ("Simmons") or JP 09-092324 ("JP 09-092324").

Claims 39 and 41-43 stand rejected under 35 USC 103(a) as allegedly being unpatentable over AAPA, as applied to claim 24 above, and in further view of either German document DE 100 48 801 ("DE 100 48 801").

Claim 40 stands rejected under 35 USC 103(a) as allegedly being unpatentable over AAPA, as applied to claim 24 above, and in further view of JP 09-092324.

Claim 44 stands rejected under 35 USC 103(a) as allegedly being unpatentable over AAPA in view of German document DE 100 48 801, as applied to claim 41 above, and in further view of USP Publication No. 2002/0187382 to Nishiumi ("Nishiumi").

Claims 24-46 stand rejected under 35 USC 112, second paragraph, as being allegedly incomplete for omitting essential structural cooperative relationships of elements, such omission

amounting to a gap between the necessary structural connections. More specifically, the Office Action contends that it is unclear to the Examiner what is the specific structural or spatial relationship between the external member and the external restrainer member with respect to each other, and with respect to the entire fuel cell assembly or multi-cell modules. Also, claim 27 is objected to because the phrase "an internal surface" allegedly lacks antecedent basis. Further, claim 38 is objected to because the phrase "the cell monitor" purportedly lacks antecedent basis.

The Applicant respectfully requests reconsideration of these rejections in view of the foregoing amendments and the following remarks.

II. Applicant's Statement of Substance of Examiner Interview

In compliance with M.P.E.P. 713.04, the Applicant provides this Statement of Substance of Interview concerning the interview conducted on October 29, 2009 with Examiner Raymond Alejandro, and the Applicant's representative Xiaomin Huang.

(A) Exhibits. N/A.

(B) Claim(s). All pending claims, in particular claim 24.

(C) References Discussed. All cited references.

(D) Amendments. N/A

(E) Principal arguments of Applicant. The Applicant argued that the cited references did not teach or suggest "an end plate provided at an end of the fuel cell assembly in series in a cell stacking direction" and "the external member, the external restrainer member, and the module frame are provided with a lateral side of the fuel cell assembly" as recited in proposed amendment to the claim 24.

(F) Other matters. None.

(G) Results. The Examiner indicated that the Applicant's arguments were not persuasive.

III. Drawing/Specification Objections

The Office Action objects to the Abstract because it does not appear to precisely describe the claimed invention. The Abstract is amended to precisely describe the claimed invention. Withdrawal of the objections is respectfully requested.

The Office Action further objects to the Drawings for not including reference numeral 10 which is described in paragraph [0003], for including reference numeral 19 in FIGS. 30-31 (which is allegedly not described in the specification), and for FIGS. 30-31 not being labeled prior art.

It is respectfully submitted that reference numeral 10 is shown in FIG. 1 of JP 2002-124291.[1] Nonetheless, reference numeral 10 is added to FIG. 31, thus withdrawal of this objection is respectfully requested.

It is respectfully submitted that reference numeral 19 is described in at least paragraph [0082] of the specification as filed. Nonetheless, paragraph [0003] of the application as filed is amended to include a brief description of reference numeral 19,[2] thus withdrawal of this objection is respectfully requested.

Further, FIGS. 30-31 are amended to be designated by "Prior Art," thus withdrawal of this objection is respectfully requested.

Thus, in view of the foregoing amendments and remarks, the Applicant respectfully requests withdrawal of the objections to the Drawings and the Specification.

IV. 35 USC 112, second paragraph, Rejections

Claims 24-46 stand rejected under 35 USC 112, second paragraph, as being allegedly incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. More specifically, the Office Action contends that it is unclear to the Examiner what is the specific structural or spatial relationship between the external member and the external restrainer member with respect to each other, and with respect to the entire fuel cell assembly or multi-cell modules.

Also, claim 27 is objected to because the phrase "an internal surface" allegedly lacks antecedent basis.

Further, claim 38 is objected to because the phrase "the cell monitor" purportedly lacks antecedent basis.

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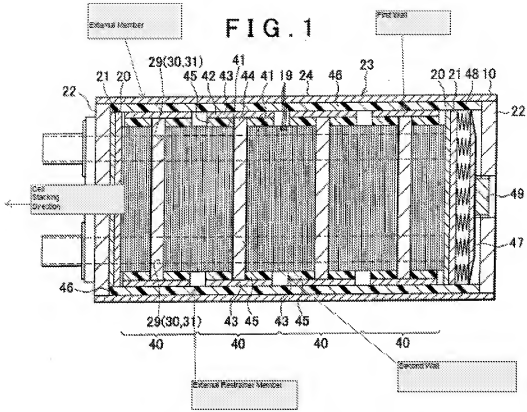
[1] It is noted that paragraph [0003] of the application as filed states "…as disclosed in Japanese Patent Application Laid-Open Publication No. 2002-124291, ***or*** as shown in FIGS. 30 and 31…."

[2] It is respectfully submitted that the amendment to paragraph [0003] of the application as filed is supported by at least paragraph [0082] of the specification as filed, as well as by FIGS. 30-31.

We believe the amendments shown in the enclosed proposed revised claim set should obviate any perceived ambiguity.

That said, with respect to the rejection of claim 24, the Applicant respectfully submits that an example of one embodiment within the scope of ***claim 24*** (as amended) is illustrated in ***FIG. 1***. For the convenience of the Examiner, the language of claim 24 and FIG. 1 are reproduced below with reference numbers corresponding to the embodiment of FIG. 1, although, of course, it should be realized that the claim is not limited to this example embodiment:

> 24. (Currently Amended) A fuel cell assembly comprising:
> a plurality of multi-cell modules disposed in series and in a stacking direction;
> an external member, and
> an external restrainer member provided along the external member in the stacking direction,
> wherein [[the]]each multi-cell module of the plurality of multi-cell modules has, a multi-cell assembly formed by stacking a plurality of cells, and a module frame having a first wall that surrounds the multi-cell assembly and that extends in [[a]]the cell stacking direction of the multi-cell assembly,
> wherein the external member extends outside the plurality of multi-cell modules and in the cell stacking direction along the multi-cell modules, and
> wherein the external restrainer member is provided between an internal surface of the external member and an external surface of the first wall of the module frame of the multi-cell module, and contacts the internal surface of the external member and the external surface of the first wall.



As shown above, the amended claim 24 sufficiently defines a clear structural arrangement with respect to the external member, the external restrainer member and the multi-cell modules. Further, claim 27 is amended to recite "the internal surface" and claim 38 is amended to recite "a cell monitor." Thus, withdrawal of the 112, second paragraph rejections is respectfully requested.

V. Pending Claims and Remarks Regarding Rejections under 35 U.S.C. § 102

Claim 24 stands rejected under 35 USC 102(b) as allegedly clearly anticipated by AAPA, van Linden, JP 2002-124291, and DE 196 45 111.

a. Certain Embodiments of the Present Invention

Certain embodiments of the present invention provide a fuel cell assembly capable of preventing disassembly of a cell stack by preventing modules adjacent to an end portion of the cell stack from sliding upon an impact of an acceleration in a direction perpendicular to the cell stacking direction and which avoids the sticking of a cell adjacent to an end portion of the cell

stack onto an external restrainer member if such a member is provided. In order to do so, a fuel cell assembly includes a plurality of multi-cell modules disposed in series, and an external member. The multi-cell module has a multi-cell assembly formed by stacking a plurality of cells, and a module frame having a first wall that surrounds the multi-cell assembly and that extends in a cell stacking direction of the multi-cell assembly (as well as a second wall that extends perpendicular to the cell stacking direction). The external member extends outside the plurality of multi-cell modules and in the cell stacking direction along the multi-cell modules. Also, an external restrainer member is provided between an internal surface of the external member and external surfaces of the first walls of the module frames of the plurality of multi-cell modules *See* FIG. 1 and paragraphs [0020]-[0022] of the application as published.

Accordingly, at least a portion of the lateral force of an impact that occurs on the multi-cell assemblies is transferred to the first walls via the second walls, and is received from the first walls by the external member via the external restrainer member. *See* paragraph [0119] of the application as published.

b. AAPA

It is respectfully submitted that claim 24 is patentable over AAPA at least because it recites, *inter alia*, "…an external member, and ***an external restrainer member provided along the external member in the stacking direction***," and "wherein ***the external restrainer member is provided between*** an internal surface of the external member and an external surface of the first wall of the module frame of the multi-cell module, and ***contacts*** the internal surface of the external member and the external surface of the first wall." (emphasis added)

The Examiner alleges that the external restrainer member restrainer member is provided between the bolt 25 (module frame) and the end plate 22 (external member) in AAPA (JP-A-2002 124291). However, the external restrainer member 24 of AAPA is the tension plate corresponds to the external member of the present invention, and the end plate 22 is provided with the end of the fuel cell assembly in series in the cell stacking direction. Therefore, the end plate 22 is not the external member as claimed and AAPA does not disclose or suggest an external restrainer member ***and*** external member which extend in the cell stacking direction (at the very best, element 24 shown in FIG. 31 equates to only the external member of the invention of claim 24, but not an external member and an external restraining member). The Applicant respectfully submits that "[a] claim is anticipated only if each and every element as set forth in

the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

c. van Linden

It is respectfully submitted that claim 24 is patentable over van Linden at least because it recites, *inter alia*, "…an external member, and ***an external restrainer member provided along the external member in the stacking direction***," and "wherein ***the external restrainer member is provided between*** an internal surface of the external member and an external surface of the first wall of the module frame of the multi-cell module, and ***contacts*** the internal surface of the external member and the external surface of the first wall…." (emphasis added)

The Examiner alleges that van Linden anticipates claim 24 but does not provide any reference numerals to substantiate the allegations. In Applicant's understanding, the case 1 of van Linden may correspond to the external member of the present invention. van Linden discloses the safety device 16 that absorb any increase pressure is provided between the ease 1 and the fuel cell block 8, 9 (which correspond to the multi-cell modules of the present invention). However, the safety device 16 rather corresponds to a terminal 20 or an insulator 21 of the present application. The member 4a and 4b in Fig. 1 may correspond to the module frame of the present invention.

But in any event, van Linden does not disclose the external retainer member. Assuming arguendo that van Linden shows the first wall, and an external member, which is not so admitted, van Linden still does not show ***an external restraining member*** located in between an internal surface of the external member and an external surface of the first wall as required by the invention of claim 24. Instead, what appears to be (there are no reference numerals provided in the Office Action) the alleged first wall and the external member, directly contact one another, and there is nothing in between.

Thus, lacking any teaching and/or suggestion of such an external restraining member, van Linden does not anticipate claim 24. The Applicant respectfully submits that "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

If the Examiner plans on maintaining this rejection, Applicant respectfully requests that the Examiner provide reference numerals to substantiate the allegations set forth in the Office Action.

d. JP 2002-124291

It is respectfully submitted that claim 24 is patentable over JP 2002-124291 at least because it recites, *inter alia*, "…an external member, and ***an external restrainer member provided along the external member in the stacking direction***," and "wherein ***the external restrainer member is provided between*** an internal surface of the external member and an external surface of the first wall of the module frame of the multi-cell module, and ***contacts*** the internal surface of the external member and the external surface of the first wall…." (emphasis added)

Again, as noted above, claim 24 at least requires the following three structural elements: 1) a first wall; 2) an external member; and 3) an external restraining member provided between the external member and the first wall (all but the second wall extending in the cell stacking direction). JP 2002-124291 does not show a first wall, an external member, nor a external restrainer member extending in the cell stacking direction (all of the support elements extend perpendicular to the cell stacking direction).

Thus, lacking any teaching and/or suggestion of at least the four structural elements recited in the invention of claim 24, JP 2002-124291 does not anticipate the claim. The Applicant respectfully submits that "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

If the Examiner plans on maintaining this rejection, Applicant respectfully requests that the Examiner provide reference numerals to substantiate the allegations set forth in the Office Action.

e. DE 196 45 111

It is respectfully submitted that claim 24 is patentable over DE 196 45 111 at least because it recites, *inter alia*, "…***an external member***, and ***an external restrainer member***

provided along the external member in the stacking direction," and "wherein ***the external restrainer member is provided between*** an internal surface of the external member and an external surface of the first wall of the module frame of the multi-cell module, and ***contacts*** the internal surface of the external member and the external surface of the first wall...." (emphasis added)

DE 196 45 111 simply does not describe an external member and/or an external restrainer member which extend in the cell stacking direction (at the very best, only a first wall is shown in the figures reproduced in the body of the Office Action). The Applicant respectfully submits that "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

If the Examiner plans on maintaining this rejection, Applicant respectfully requests that the Examiner provide reference numerals to substantiate the allegations set forth in the Office Action.

f. Obviousness

The Office Action further cites to secondary references.

However, US5,824,199 does not disclose how to retain the fuel cell stack from outside and US2002/0187382 merely discloses tension plate 24 but does not mention a module frame or an external retainer member.

It is respectfully submitted that the other cited references do not cure the deficiencies of the above-mentioned references. Therefore, it would not have been obvious to modify AAPA, van Linden, JP 2002-124291, and/or DE 196 45 111 in the manner as claimed in the invention of claim 24. As discussed in MPEP 2143.01, obviousness can ***only*** be established by combining or modifying the ***teachings of the prior art*** to produce the claimed invention where there is some ***teaching, suggestion, or motivation*** to do so. *In re Kahn*, 441 F.3d 977, 986, 78 USPQ2d 1329, 1335 (Fed. Cir. 2006) (discussing rationale underlying the motivation-suggestion-teaching *>test< as a guard against using hindsight in an obviousness analysis).

Further, as discussed in *KSR Int'l Co. v. Teleflex, et al.,* No. 04-1350, (U.S. Apr. 30, 2007), it remains necessary to identify the reason why a person of ordinary skill in the art would

have been prompted to modify AAPA, van Linden, JP 2002-124291, and/or DE 196 45 111 in the manner as recited in the invention of claim 24. Obviousness cannot be sustained on mere conclusory statements.

Therefore, for at least these reasons, it is respectfully submitted that claim 24, as well as its dependent claims, are patentable over AAPA, van Linden, JP 2002-124291, and/or DE 196 45 111.

Therefore, the Applicant respectfully submits that claims 24-46 are patentable over the cited references.

VI. New Claims 47-50

New claims 47-50 depend from claim 24 and are thus patentable over the cited references for at least the same reasons discussed above with respect to claim 24.

VII. Conclusion

In light of the above discussion, the Applicant respectfully submits that the present application is in all aspects in allowable condition, and earnestly solicits favorable reconsideration and early issuance of a Notice of Allowance.

The Examiner is invited to contact the undersigned at (202) 220-4420 to discuss any matter concerning this application. The Office is authorized to charge any fees related to this communication to Deposit Account No. 11-0600.

Respectfully submitted,

Dated: November 12, 2009

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APPENDIX

Figs. 30-31